

C1
22. The powder of claim 20 wherein the bioactive agent is selected from the group consisting of nicotine, fentanyl, morphine, lung surfactant, PTH, leuprolide, interferon, insulin, budesonide formoterol, goserelin, and growth hormones.

Sub D1
C2
39. A powder composition comprising a plurality of particulate microstructures, said microstructures comprising a structural matrix comprising an active agent, calcium and a phospholipid, wherein said microstructures comprise a geometric diameter of 1-30 microns, an aerodynamic diameter of less than 5 microns, and a bulk density of less than about 0.5 g/cm³.

40. A powder composition comprising a plurality of particulate microstructures, said microstructures comprising a structural matrix comprising calcium and a phospholipid wherein said phospholipid comprises a gel to liquid crystal transition temperature of greater than 40° C.

Please cancel claim 48.

C3
49. The powder of claim 43 wherein said active agent is a bioactive agent selected from the group consisting of antiallergics, bronchodilators, pulmonary lung surfactants, analgesics, antibiotics, antiinfectives, leukotriene inhibitors or antagonists, antihistamines, antiinflammatories, antineoplastics, anticholinergics, anesthetics, anti-tuberculars, antivirals, immunoactive agents, vaccines, immunosuppressive agents, imaging agents, cardiovascular agents, enzymes, steroids, DNA, RNA, viral vectors, antisense agents, proteins, peptides and combinations thereof.

Sub D2
50. The powder of claim 49 wherein the bioactive agent is selected from the group consisting of nicotine, fentanyl, morphine, lung surfactant, parathyroid hormone, leuprolide, interferon, insulin, budesonide formoterol, goserelin, and growth hormones.
